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The membership fees are,

Annual Members.....	\$ 10	Fellows.....	\$ 500
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All money received from membership fees is used for increasing the collections and for developing the educational work of the Museum.

The Museum is open free to the public on every day in the year.

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THE DUCK HAWK HABITAT GROUP.
Cliffside, Alaska. Feb. 20, 1908.

The American Museum Journal

VOL. IX

JANUARY, 1909

No. 1

THE DUCK HAWK, HACKENSACK MEADOW AND EGRET GROUPS.

THE JOURNAL presents this month photographs of three Bird Habitat Groups. Two of these, recently completed, are of special interest to residents of the vicinity of New York City. The first shows the Duck Hawk or Peregrine Falcon as it nests on the Palisades. This Falcon is famed for its fearlessness and strength of wing and talon. Among falconers the Peregrine was rated second only to the Gyr Falcon and no person of lower rank than an earl was permitted to own and fly one of these noble hawks. The Peregrine is found throughout the greater part of the world but is nowhere common. Near New York City it is known to nest only on the less accessible ledges and cliffs of the Palisades and Hudson Highlands.

The second local group illustrates the bird-life of our Hackensack Meadows in August. During this month, and in September, these marshes are the home of myriads of birds which come to them to roost and to feed. Swallows of several species are comparatively rare in the marshes during the day, but late in the afternoon they stream in by the thousand, coming from every direction and steering their flight toward some regularly frequented roost in the reeds. They leave early in the morning radiating to all points of the compass to scour the country for food. Red-winged Blackbirds, Bobolinks, now called Reedbirds, and Carolina or Sora Rail are attracted to the marshes by the wild rice which ripens about this time; and the last two are now killed in large numbers. In August the marshes are remarkable not only for their birds but also for their flowers. Marsh mallows, cardinal flowers, jewel-weed, sagittaria, pickerel weed, loose-strife, wild sunflower, hempweed, vervain, gerardia and many other species bloom so luxuriantly that one might imagine that nature was holding a flower show.

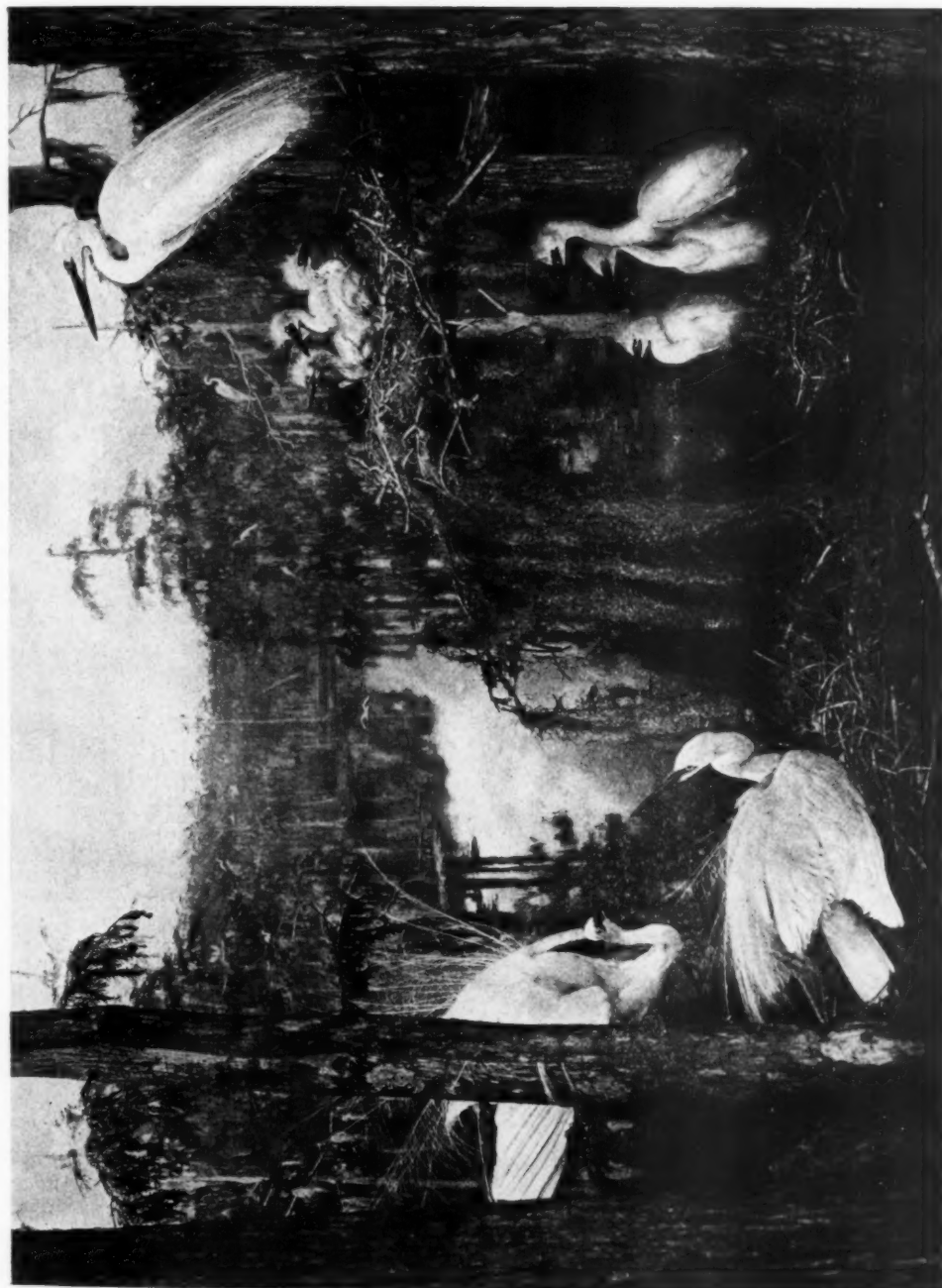
The third group shows part of a colony of the White Egret in a flooded cypress forest of South Carolina. This Habitat Group was added to the series early in the year, in fact the history of the accumu-

lation of Egret studies is reported in the *JOURNAL* for December, 1907. Both the birds and their haunt are singularly picturesque. The nests are high in the trees and look out over the waters of a swamp through ragged cypress sprays and festoons of "Spanish moss." This is the Egret that has been brought so near extermination by the plume-hunters. It is a matter for rejoicing that there still exists this large South Carolina rookery and, moreover, that it is within the precincts of a game preserve where continued protection is assured.

TWO NOTEWORTHY FOREIGN MUSEUMS.

TWO European museums of natural history, rather small and relatively recent in establishment, are nevertheless peculiarly noteworthy. This is according to the impressions of Mr. James L. Clark, of the Department of Preparation and Installation, who spent the summer of 1908 abroad. The institutions in question are the Musée de Tervueren, or Congo Museum, just outside of Brussels, and the Senckenberg Museum at Frankfurt; and their prominence is the result of methods of installation, displaying objects in direct relation to their environment or to industry.

The Musée de Tervueren is an unpretentious one-story building with its two main halls devoted to the zoölogy and ethnology, respectively, of the Congo Free State. The hall of zoölogy contains many rare mammals, birds and fishes, several okapi of different ages making perhaps the most striking exhibit. It is the hall of ethnology, however, that claims emphatic admiration in Mr. Clark's opinion. The lighting is from above. Each specimen is well placed and is accompanied by photographs illustrating action or use. The general arrangement is in alcoves, where are shown various phases of every day life. In the alcoves devoted to home life, for instance, straw mats and implements and utensils of the hut are arranged on the walls as a background; large pieces, such as stone pestles, or models of the huts, are set on the floor; while a life-sized family group is made to occupy the central space. The figures of these groups are beautifully modeled and executed in plaster, cleverly painted, and are clothed in the genuine wearing apparel of the natives. The people are represented in action, grinding grain or



THE EGRET HABITAT GROUP.
Gallery Floor. Hall No. 308.



THE HACKENSACK MEADOW HABITAT GROUP.

making ornaments, as the case may be. Finally, above the alcove exhibit, mural paintings of an entire settlement show the village life. Thus is told in a comparatively small space a complete story of Congo home life in a manner highly instructive and artistic as well.

The Senckenberg Museum at Frankfurt is in connection with the University. The building is modern, well lighted and provided with a large hall equipped for lectures and study. A group of African antelope with a painted background to show environment proclaims the enterprise of the institution and the tendency of its work. The large Diplodocus presented by the late Mr. Morris K. Jesup, while president of the American Museum of Natural History, stands in the main foyer.

The world to-day demands not only that the modern museum shall exhibit a multitude of rare and splendid specimens for the use of scientists and students, but also that it shall so install these specimens that they will make a vivid appeal to the ordinary observer, forcefully portraying stages in the evolution of the material world and in the history of civilization.

THE INTERNATIONAL TUBERCULOSIS EXHIBITION.

UNDER the auspices of the Charity Organization Society of the City of New York, the International Tuberculosis Exhibition opened November 30th in the new northwest wing of the Museum. It immediately proved its power to attract. By the close of the fourth day it had been visited by 65,000 people, and before the end of the first week by one-third of the half-million attendance expected by the society for the whole period of six weeks.

So admirably is the exhibition organized that it readily permits comparative study. The extensive German display, prepared under the auspices of the Imperial Board of Health of Berlin, stands mainly for treatment and cure, as do also the exhibits of Switzerland, Hungary and several other foreign nations, while Ireland's notable campaign under the Women's National Health Association has been aimed toward an education that would bring about prevention.

The keynote of the American exhibits also is prevention. Those of Pennsylvania and Rhode Island are realistic in the presentation of actual

living rooms to contrast the conditions promoting tuberculosis and the conditions that should obtain. A part of New York's exhibit shows the disastrous effects of over-crowding under adverse light and air conditions, comparing models of old tenements and those built under the new law and bringing to mind the striking features of the "Congestion of New York" exhibition held here last winter and the Tuberculosis exhibition of three years ago. Massachusetts gives a study of the industrial aspect of the disease, showing photomicrographs of dust and dust-clogged lungs, and making plain the need of efficient protection for workers in horn and celluloid, steel, iron, felt and other materials.

A prominent place at the south entrance is occupied by the exhibit of the New York Charity Organization Society's Committee on the Prevention of Tuberculosis. This Committee at the recent International Congress in Washington shared with Ireland the first prize of \$1,000 for the best evidence of effective work. Just to glance through this Committee's mass of free literature put forth in Yiddish, Italian, Bohemian, Swedish, French, German and English is to gain a realization of the comprehensive character of its work.

New York City has been fortunate in a coöperation of officials and physicians, and, in the opinion of Dr. Robert Koch, has a better organization for the prevention of tuberculosis than any other city in the world. In 1886, the death rate from tubercular diseases was 4.42 per 1,000; in 1907, it was 2.42 per 1,000, a decrease of more than 40 per cent. Of the 14,000 free beds for tuberculosis patients in the United States, 25 per cent are in New York City. But, as was emphasized at the meeting that formally opened the exhibition, conditions in New York can never become ideal, and tuberculosis as rare as smallpox, until there is a trio of forces at work — officials, physicians and an enlightened public. Hence the value of the Tuberculosis Exhibit as an educative force in counter-acting habit, ignorance and prejudice; hence the place of the exhibition within the walls of the American Museum of Natural History and its classification with other evidences of increased knowledge and municipal progress, such as playgrounds and free baths, parks, schools, museums and free public lectures.

A review of the whole exhibit, or of even a part of the whole, convinces one that tuberculosis is a preventable disease, that the 1,095,000 lives sacrificed to it each year (200,000 in the United States, 14,406 in New York State in 1907) are an unnecessary loss. It is the human interest

in this stupendous fact that holds the visiting throngs of whatever station in life to earnest study of alcove after alcove. The exhibition also makes it clear that, in most parts of the world at least, the fight against tuberculosis is well on. At the same time, it suggests even more definitely that the prevention of tuberculosis must be a prevention of infection, and that therefore the manner of the warfare must be segregation.

It is interesting in this connection to compare tuberculosis and leprosy. Both are caused by bacilli whose growth produces local tissue changes; both may have a long period of latency; both are protracted in course; both lack evidence of hereditary predisposition. Out of all expert discussions, this fact remains the final issue: that a complete stamping out of the white plague can never take place, no matter how resistant to tubercle bacilli the populace can be made, except by segregation of advanced cases. This conclusion is reached not only by analogy with diseases like leprosy, nor only by a study of the pathology of the disease, nor only by experimentation with cattle by which extermination of tuberculosis was effected in numerous herds in one generation by segregation, but also by a comparison of the actual experience of various countries. This comparison shows institutional care rather than any condition of living or industry, the influence that remains in constant relation to the amount of tuberculosis existing; therefore this institutional care must be the predominant influence. A knowledge of this adds new force to a prominent feature of the exhibit,—models of hospitals and sanatoria, such as those designed for the new buildings to be put up at the Henry Phipps Institute, Philadelphia. The visitor searches for facts, not merely of structure, but likewise of organization and maintenance of such institutions. How many will be privately endowed? How many should be erected and supported at the expense of state or nation? These are questions that must have practical answers in the near future. It is computed that if every consumptive now dying in the state of New York were given hospital care, the number would be about one-half of the insane supported at public expense.

Man's infection from bovine tuberculosis is given emphasis in various exhibits, particularly in the pathological work presented by the Bureau of Animal Industry of the United States Department of Agriculture, in the laws of the New York Department of Health with regard to the city's milk supply, in a demonstration of the pasteurization of milk, and in the equipment of a model dairy and model cowshed shown in

temporary structures just outside the north entrance to the exhibition. It must be conceded, however, that among physicians there exists a difference of opinion, relatively unimportant in its practical bearings, concerning the matter of man's infection from cow's milk. Many believe that milk is a minor vehicle of infection for adults, though a potent one in the case of children. In fact, the controversy that arose at the Congress of 1901 as to the identity of human and bovine tubercle bacilli is still an unsettled scientific question, with Dr. Koch maintaining the distinct character of the two germs but allowing the possibility of man's infection from bovine bacilli.

The International Tuberculosis Exhibition must be admitted to be of far-reaching significance. It stands for increased knowledge of nature, of the relations between the hosts of the microscopic world and the health of man; it stands for social and economic progress; and, happily, it means for the future a closer union between men of science and men of affairs. Besides accomplishing its main object, it is certain to bring about, in general, more hygienic ways of living, broader ideas of the work that should be done in health-control by city, state and national governments, and a more practical recognition of the obligations of mutual helpfulness.

The exhibition will be open to the public until January 10. Numerous mass meetings and special conferences are being held by physicians, medical students, nurses, social workers, labor unions, street railway employees and others, with announcements in the daily papers of the dates of these meetings and the programmes of speakers.

AN ETHNOLOGICAL TRIP TO LAKE ATHABASCA.

DURING the summer of 1908, by arrangement between the Museum and the New York Academy of Sciences, I undertook an ethnological expedition to the Chipewyan Indians of Lake Athabasca. Leaving New York on the 5th of May, five days' travel brought me to Edmonton, probably the greatest fur-mart of the world and the northernmost point that can be reached by rail. It was at this place, in the office of the Hudson's Bay Company, that I completed my camping outfit and procured the two articles considered the most essen-

tial parts of a Northland traveler's equipment, a mosquito bar for protection at night and a netting for day use. After leaving Edmonton two days' stage journey found me at Athabasca Landing, the last post office and the head of the Arctic inland water-route.¹

Here, I joined Captain Kelly of the Hudson's Bay Company, who was prepared to start down stream with a fleet of seven scows bearing the yearly provisions for all the Company's northern trading posts. Each boat was manned by several oarsmen, who rowed after the fashion of the old Roman galley-slaves, rising from their seats at each stroke, and by a steersman who manipulated a heavy sweep. For several days



THE "GRAHAME" ON LAKE ATHABASCA.

we alternately rowed and drifted down the Athabasca River, our half-breed crew whiling away leisure time with a hand-game similar to our "button, button, who's got the button."

By the 19th of May we were only a short distance above the Grand Rapids of the Athabasca, and, owing to the extreme shallowness of the water and the numerous rocks in the river-bed, the oarsmen were obliged to punt instead of row. At the Grand Rapids, the river is divided into two channels by an island nearly a half mile long. The

¹ Dr. Lowie's route may be traced by studying the map on page 102 of the *JOURNAL* for November, 1908.

western of the two channels is wholly impassable, but the eastern channel can be traversed, provided boats have been lightened of their cargoes. Accordingly we removed our freight and baggage to the shore, transporting them the length of the island in hand-pushed carts or on our backs, and steered the emptied scows through the shoals along the eastern bank. Finally, at the far end of the island, we reloaded the boats, having consumed six days in the tedious operation.

The next hundred miles gave an almost continuous succession of rapids, which, however, our scows passed without damage. We reached



HEADMAN



"OLD CATHARINE."

Fullblooded Chipewyan.

Ft. McMurray, the objective point of the scows, on the 28th of May. Here the freight was unloaded and piled on the bank to await the arrival of the Hudson's Bay Company's steamer, the "Grahame," which plies irregularly between Ft. McMurray and Smith's Landing. Captain Kelly then turned back, leaving me and two half-breed watchmen with three days' supply of provisions — which it turned out we had to husband with care, since the steamer did not appear for eight days. The remainder of the trip presented no unusual features, and on the 8th of

June, I landed at Ft. Chipewyan, on the northwestern shore of Lake Athabasca. Here I found good opportunity for the investigation I had planned, since this settlement is one of the chief rendezvous of the Chipewyan Indians.

These Indians are a branch of the Athabaskan, or D  n   stock, the largest linguistic family of North America, embracing the Hupa of California and the Apache and Navajo of the Southwest, as well as the aborigines of the Mackenzie River basin. They do not live on reservations, but hunt and fish in primitive fashion around the shores of Lake Athabasca, Lake Claire and the Slave River. Peltries are offered to the Hudson's Bay Company and to rival "free-traders" in exchange for clothing and provisions; but, even with these supplies, considerable hardship is often encountered during the long winters.



TALLEST CHIPEWYAN MEASURED.
Height 6 feet 2 inches.



CHIPEWYAN BOYS.

Many valuable photographs were secured at Ft. Chipewyan and at Fond du Lac near the eastern extremity of the Lake. The physique of the Chipewyan differs considerably from the Sioux prototype on which popular conceptions of Indian appearance are modeled. Their cheekbones are, on the whole, less prominent; and, as the hair of the face is not plucked out, fairly heavy moustaches are common and whiskers also occur. Though not averaging below five feet seven inches in height, the natives of the Athabasca district are short as compared with the Plains Indians.

Ethnologically, the Chipewyan were found to share two fundamental traits of all their Athabaskan congeners: (1) great simplicity of organization and (2) extraordinary susceptibility to extraneous influences. They do not practise any elaborate ceremonials, nor is there any strongly centralized executive power; esoteric fraternities and age-societies are lacking. Shamanistic activity, however, flourished until recent times, and within the memory of men still living at the fort, there resided at Fond du Lac a medicine-man, who, according to the belief of the natives, could transform himself into a wolf and thus hunt the moose. In their mythology, the Chipewyan betray a strong family resemblance to their northern congeners. There are tales of giants, of the man in the moon, of a weird foundling who by his magical powers aided his people in times of famine, and of a powerful shaman who avenged his father's murder and destroyed all his enemies until the time when he himself perished by an accident. The receptivity of the Chipewyan is shown by the strong influence exerted by the Catholic missions and the Hudson's Bay Company, both of which have profoundly modified primitive conditions. Other instances in point are the adoption of a complete Cree cycle into their mythology, and the imitation of their southern neighbors in the Cree tea-dance, a purely social diversion.

In July, an opportunity offered to return to civilization with a free-trader. Our little craft was towed for three days by a small tug through 172 miles of lake and river to Ft. McMurray. There the eight men of the crew were harnessed to a tow-line to pull the boat up the remaining 265 miles of the Athabasca River. At each of the rapids, we were obliged to get out and commence an "obstacle-walk," at times for several miles, now clambering up a five-foot ledge of limestone, now trying to get a foot-hold on a slippery earth-bank, dodging lodged deadfalls, and jumping across logs in our way. Every night we camped

ashore, pitching our mosquito-bars on wet soil or dry as the case might be. At five o'clock each morning we rose, bundled up our bars and bedding, re-embarked, and continued our journey. Twenty miles' journey we considered a good day's work. As we were not fortunate enough to sight any moose, our diet was a well-nigh uninterrupted combination of bacon, bannocks and beans. We made the trip, as a whole, in relatively short time, covering the total distance of 437 miles in seventeen days, but it was with a sense of great relief that we ultimately sighted the wharves and buildings of Athabasca Landing. From there we took the stage to Edmonton, and were again in railroad connection with the outside world.

R. H. LOWIE.

MUSEUM NEWS NOTES.

THE HON. MASON MITCHELL, to whom the departments of Anthropology and Mammalogy are already indebted for much valuable material from eastern Asia, presented to the Museum in December an exceptional series of ethnological specimens from Tibet, together with some choice things from China and India. An extended notice of this acquisition is reserved for a future number of the JOURNAL.

THE Department of Anthropology has recently received a guanaco skin cape as a gift from Mr. Charles H. Townsend, who obtained it some years ago at Punta Arena, Strait of Magellan. The guanaco is a mammal related to and somewhat larger than the llama. The hair of the adult is coarse, so that old skins are not suitable for use in the manufacture of garments, but the hair of the young is fine, and animals probably not more than two weeks old are slaughtered for skins to be used in capes like the one just received. The skins are sewed together with ostrich sinew. The Tehuelches of the continental side of the Strait wear the robe with the hair next to the body, while the Onas across the water from them, where the rainfall is much greater, turn the fleece side out, since the hair readily sheds water.

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LECTURE ANNOUNCEMENTS.

LEGAL HOLIDAY COURSE.

Fully illustrated. Open free to the public. No tickets required.

Lectures begin at 3:15 P. M. Doors open at 2:45 P. M.

Two lectures remain to be given in this course:

New Year's Day, January 1, 1909.

"Florida Bird Life." (Moving pictures.) By FRANK M. CHAPMAN.

Washington's Birthday, February 22, 1909.

"Some of the Food and Game Fishes of the Eastern United States.—
Habits and Methods of Capture." By ROY W. MINER.

COLUMBIA UNIVERSITY COURSE.

JESUP LECTURES.

GIVEN in coöperation with Columbia University.
Wednesday evenings at 8:15 o'clock.

Continuation of a course of lectures on light by PROFESSOR RICHARD C. MACLAURIN of Columbia University.

- January 5.— "The exact laws of reflection and refraction and their bearing on the construction of optical instruments."
January 13.— "Optical properties of crystals."
January 20.— "The principle of interference and its explanation of various color phenomena."
January 27.— "The measurement of light waves and the theory of diffraction."
February 3.— "Some relations between light and electricity."
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PEOPLE'S COURSE.

GIVEN in coöperation with the City Department of Education.
Tuesday evenings at 8 o'clock. Doors open at 7:30.

IAN C. HANNAH,— a course of six lectures on European relations with the Far East.

- January 5.— "The East and the West and Their Different Ideals."
January 12.— "China's Everlasting Empire."
January 19.— "England's Eastern Empire."
January 26.— "The Russian March Across Asia."
February 2.— "Japan's Transformation."
February 9.— "America as an Asiatic Power."

Saturday evenings at 8 o'clock. Doors open at 7:30.

- January 9.— PROFESSOR LAFAYETTE B. MENDEL of Yale University, "Development of the Milk Industry."
January 16.— HON. J. S. WHIPPLE, "The Adirondack Forest."
January 23.— PROFESSOR LAFAYETTE B. MENDEL, "Growth and Beauty of Children."
January 30.— WILLIAM L. HALL, "Forests and Waters."

MEETINGS OF SOCIETIES.

Public meetings of the New York Academy of Sciences and its Affiliated Societies are held at the Museum according to the following schedule:

On Monday evenings, The New York Academy of Sciences:

First Mondays, Section of Geology and Mineralogy.

Second Mondays, Section of Biology.

Third Mondays, Section of Astronomy, Physics and Chemistry.

Fourth Mondays, Section of Anthropology and Psychology.

On Tuesday evenings, as announced:

The Linnæan Society of New York, The New York Entomological Society and the Torrey Botanical Club.

On Wednesday evenings, as announced:

The New York Mineralogical Club.

On Friday evenings, as announced:

The New York Microscopical Society

The programmes of the meetings of the respective organizations are published in the weekly *Bulletin* of the New York Academy of Sciences and sent to the members of the several societies. Members of the Museum on making request of the Director will be provided with the *Bulletin* as issued.

The American Museum Journal

EDMUND OTIS HOVEY, *Editor.*

FRANK M. CHAPMAN,
LOUIS P. GRATACAP,
WILLIAM K. GREGORY, } *Advisory Board.*

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Act of Congress, July 16, 1894.

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